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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/579,325

10/26/2006

Michael A. Reid

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EXAMINER

WRIGHT, GIOVANNA COLLINS

ART UNIT

PAPER NUMBER

3672

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/579,325	<b>Applicant(s)</b> REID ET AL.	
	<b>Examiner</b> GIOVANNA C. WRIGHT	<b>Art Unit</b> 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14 and 15 is/are allowed.
- 6) ☒ Claim(s) 1-7,9-11,11.2,11.3,11.4,11.5,11.6,11.7,11.9,12 and 13 is/are rejected.
- 7) ☒ Claim(s) 8 and 11.8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Canterbury 4063594.

Referring to claim 10, Canterbury discloses a method of injecting fluid into a well bore, the method comprising the steps: locating an injection valve ( 10) on an anchoring device at an end of a work string running the string to a required depth; sealing the string to a wall of the well bore using the anchoring device; passing fluid at a first pressure through the work string; and using the fluid to open the valve ( col. 3, lines 38-45) and thereby inject fluid through an unimpeded path ( at 34c) through the valve into the well bore ( col. 4, lines 30-33).

Referring to claim 12, Canterbury discloses the step of trapping pressure below the valve ( at

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 3672

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 9-10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canterbury 4063594 in view of Stanley et al. 2698586.

Referring to claims 1-5, 9, 11.1-11.5 and 11.9, Canterbury discloses (fig.1) an high lift injection valve for use in a downhole tool, the valve comprising a substantially tubular body including a first end for connection to a wireline lock or packer in a work string, the first end having a first inlet (at 24) communicating with the string providing a flow path of a first cross-sectional area; one or more ports (30) located on the body;; a sealing assembly comprising poppet (12a) with a first sealing surface moveable in relation to the body to open and close the ports and a seat (at 314) on the inner surface of the body providing the second sealing surface; wherein fluid flow through the inlet moves the seal cap to open the valve and a spring (13) enclosed within a housing. Canterbury does not disclose the ports have a combined cross sectional area greater than the first cross sectional area but does disclose the ports are sized to provide as low resistance to flow as possible (col. 4, lines 30-33). Stanley teaches that ports (30) having a combined cross sectional area greater than half the first cross sectional area of a tubular helps to reduce the pressure drop (col. 4, lines 21-27) and thus provide a low resistance to flow. As it would be advantageous to reduce the pressure drop to provide a low resistance to flow, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the valve disclosed by Canterbury to have the ports

have a combined cross sectional area greater than half the first cross sectional area of tubular body in view of the teachings of Stanley.

Referring to claim 12, Canterbury discloses trapping pressure (at 26).

4. Claims 6-7 and 11.6-11.7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canterbury '594 in view of Stanley et al. 2698586, as applied to claims 1 and further in view of O'Donnell 2161309.

Referring to claims 6-7 and 11.6-11.7, O'Donnell does not disclose a pressure release means. O'Donnell teaches a shear ring (21) which is rated to shear at a desired pressure, where the shear ring that holds a tool in place until it is ready to be released (col. 2, lines 23-36). As it would be advantageous to have a means to ensure the valve is not opened too early, it would be obvious to one of ordinary skill in the art to further modify the valve disclosed by Canterbury, as modified by Stanley, to have a shear ring in view of the teachings of O'Donnell.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Canterbury '594 in view of Riggerberg et al. 4753292.

Canterbury does not disclose pressure testing above the valve but does disclose a packer about the valve. Ross teaches pressure testing a packer to check to see if set properly (col. 3, lines 50-52). As it would be advantageous to pressure test the packer, it would be obvious to one of ordinary skill in the art at the time of the invention to

Art Unit: 3672

modify the method disclosed by Canterbury to pressure test above the valve in view of the teachings of Riggerberg.

***Allowable Subject Matter***

Claims 8 and 11.8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 14-15 are allowed.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GIOVANNA C. WRIGHT whose telephone number is (571)272-7027. The examiner can normally be reached on 7:30-4 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3672

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Giovanna C. Wright/  
Primary Examiner, Art Unit 3672